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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,609

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Shin Ishikawa

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EXAMINER

KESSLER, CHRISTOPHER S

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,609	Applicant(s) ISHIKAWA ET AL.	
	Examiner CHRISTOPHER KESSLER	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-31 is/are pending in the application.
- 4a) Of the above claim(s) 17-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/29/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-5 and 7-16 in the reply filed on 8 December 2008 is acknowledged. The traversal is on the ground(s) that the claims of group I are novel. This is not found persuasive because the claims of group I are not novel, as discussed below.

The requirement is still deemed proper and is therefore made FINAL.

Claims 17-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 8 December 2008.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not identify the citizenship of each inventor.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

4. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-5 and 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0160248 A1 issued to Takao et al. (hereinafter "Takao").

Regarding claims 1-2, Takao teaches the invention substantially as claimed. Takao teaches a stainless steel for fuel cell separators (see Title, Abstract). Takao teaches the same ranges as claimed with regard to C, N, Cr and an overlapping range with respect to Mo (see SUMMARY OF THE INVENTION) and also teaches several examples of steel meeting the compositional requirements of the claims (see Table 2, for example). Regarding the content of aluminum, Takao does not teach that any aluminum is in the alloy examples. However, Takao teaches that aluminum may be added to the alloy in small amounts to improve the properties (see [0077]). It would have been obvious to one of ordinary skill in the art at time of invention to have added Al, because Takao teaches that the addition may be advantageous (see [0077]).

Regarding the limitation of the Al, Cr and Fe in the passive film, Takao does not describe this feature. However, Takao teaches that the steel is treated with a solution of nitric and hydrochloric acid meeting the range taught in the instant specification (see [0048] and Examples). The similar composition processed similarly must have the same properties. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been

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established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

Applicant is further directed to MPEP 2112.01.

Regarding claim 3, Takao teaches to add Mn in the amount as claimed (see [0065]-[0066]).

Regarding claim 4, Takao does not teach the claimed property. However, Takao teaches that the steel is treated with a solution of nitric and hydrochloric acid meeting the range taught in the instant specification (see [0048] and Examples). The similar composition processed similarly must have the same properties. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). Applicant is further directed to MPEP 2112.01.

Regarding claim 5, Takao teaches Cr in the amount as claimed (see [0067]-[0068]).

Regarding claim 7, Takao teaches to add Mn in the amount as claimed (see [0065]-[0066]).

Regarding claims 8-10, Takao does not teach the claimed property. However, Takao teaches that the steel is treated with a solution of nitric and hydrochloric acid meeting the range taught in the instant specification (see [0048] and Examples). The similar composition processed similarly must have the same properties. Where the claimed and prior art products are identical or substantially identical in structure or

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composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). Applicant is further directed to MPEP 2112.01.

Regarding claims 11-16, Takao teaches Cr in the amount as claimed (see [0067]-[0068]).

7. Claims 1-5 and 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Document WO 02/13300 A1 (hereinafter "Hodgson").

Regarding claim 1, Hodgson teaches the invention substantially as claimed. Hodgson teaches a stainless steel for fuel cell separators is made by a surface treatment (see abstract, pp. 1-3). Hodgson teaches that the treatment comprises a pickling in acid, which may include a combination of acids including sulfuric and nitric acids (see pp. 10-11, for example). It would have been obvious to one of ordinary skill in the art to have mixed and optimized the acid solution, because Hodgson teaches that the acids are equivalents for the same purpose (see pp. 10-11). Applicant is further directed to MPEP 2144.06.

Hodgson further teaches that the steel composition may be a 316 or 316L SS (see pp. 12-14 and table 1, for example). The Examiner takes Official Notice that the composition of 316 L SS substantially overlaps the claimed compositional ranges, establishing a prima facie case of obviousness for those ranges. It would have been obvious to have selected a steel composition in the claimed ranges because the

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composition of 316L SS overlaps said ranges. Applicant is directed to MPEP 2144.03 and 2144.05.

Regarding the limitations on surface properties, Hodgson teaches that the Cr/Fe ratio meets the claimed ratio (see pp. 17-18 and Fig. 4). Hodgson does not teach that aluminum is present, meeting the limitation of the claim. The similar composition processed similarly must have the same properties. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). Applicant is further directed to MPEP 2112.01.

Regarding claim 2, Hodgson does not teach the range as claimed. However, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). In the instant case, the limit of the compositional range of 316 SS taught by Hodgson would have been close enough to that claimed to have been expected to have the same properties. Further, Hodgson teaches that any stainless steel of the 300 series may be used (see pp. 6-7). The Examiner takes Official notice that it would have been obvious to one of ordinary skill in the art to have used a different 300 series stainless steel meeting the limitations of the claims. Applicant is further directed to MPEP 2144.03.

Regarding claim 3, the composition of 316L overlaps the claimed range.

Applicant is further directed to MPEP 2144.05. Also, The Examiner takes Official notice that it would have been obvious to one of ordinary skill in the art to have used a different 300 series stainless steel meeting the limitations of the claims. Applicant is further directed to MPEP 2144.03.

Regarding claim 4, the similar composition processed similarly must have the same properties, thus a prima facie case of obviousness is established. Applicant is further directed to MPEP 2112.01.

Regarding claim 5, Hodgson does not teach the range as claimed. However, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). In the instant case, the limit of the compositional range of 316 SS taught by Hodgson would have been close enough to that claimed to have been expected to have the same properties. Further, Hodgson teaches that any stainless steel of the 300 series may be used (see pp. 6-7). The Examiner takes Official notice that it would have been obvious to one of ordinary skill in the art to have used a different 300 series stainless steel meeting the limitations of the claims. Applicant is further directed to MPEP 2144.03.

Regarding claim 7, the composition of 316L overlaps the claimed range.

Applicant is further directed to MPEP 2144.05. Also, The Examiner takes Official notice that it would have been obvious to one of ordinary skill in the art to have used a different

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300 series stainless steel meeting the limitations of the claims. Applicant is further directed to MPEP 2144.03.

Regarding claims 8-10, the similar composition processed similarly must have the same properties. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). Applicant is further directed to MPEP 2112.01.

Regarding claims 11-16, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). In the instant case, the limit of the compositional range of 316 SS taught by Hodgson would have been close enough to that claimed to have been expected to have the same properties. Further, Hodgson teaches that any stainless steel of the 300 series may be used (see pp. 6-7). The Examiner takes Official notice that it would have been obvious to one of ordinary skill in the art to have used a different 300 series stainless steel meeting the limitations of the claims. Applicant is further directed to MPEP 2144.03.

Double Patenting

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8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-5 and 7-16 are rejected on the ground of nonstatutory obviousness-type

double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,835,487.

Although the conflicting claims are not identical, they are not patentably distinct from

each other because although applicant's prior patent does not teach aluminum,

aluminum would have been present as an unavoidable impurity in the steel. The

overlapping range of composition would have established a prima facie case of

obviousness for one of ordinary skill in the art. Applicant's prior patent teaches in a

separate claim that the steel is made by a pickling process, which would have yielded

the same properties as claimed.

Conclusion

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER KESSLER whose telephone number is (571)272-6510. The examiner can normally be reached on Mon-Fri, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

csk